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Notice of Allowability**Application No.**

10/676,732

Applicant(s)

KUSAKABE ET AL.

Examiner

Ishwar (I. B.) Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to response filed on May 31, 2005.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 0605.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>9/30/05</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows: The specification to change as below for minor typographical mistakes:

(a) "104", page 2, line 20, to be replaced by - - 104f - -.

(b) "(P)lane", page 7, line 9, 12 and 25 and page 8, line 1, to be replaced by - - plan - - (at four places).

(c) "VIII-VIII", page 8, line 13, to be replaced by - - VIII – VIII - -.

(d) ".,m", page 14, line 22, 23 and page 19, line 28 and 29, to be replaced by - - μm - - (at four places).

2. The following changes to be made in the drawing :

Reference numeral "211b" on left side of figure 2, to be replaced by - - 211a - -.

3. The following is an examiner's statement of reasons for allowance:

Regarding claims 1 and 11:

The claimed structure of a circuit board with the limitations "(A) first power distribution plane provided on the first surface so as to occupy a residual area of the first signal strip" and "(A) second power distribution plane provided on the second surface so as to occupy a residual area of the lands", in combination of other claimed limitations has not been disclosed or suggested by prior art of record alone or in combination. Claims 2-10 and 12-21, directly or indirectly, depend on claims 1 and 11 respectively.

The closest prior art located by the examiner as described below do not disclose such circuit board structure.

Valluri et al., US Patent No. 6,507,100, in figure 3, discloses dummy areas (33, 42), on top and bottom surfaces of a printed circuit board, but those dummy areas are explicitly designed as electrically non-functional areas.

Yamaji et al., US Patent No. 6,198,165, in figure 1 and 2, discloses a substrate with wiring patterns (8) surrounded by dummy patterns 14. However, this is only a single layer circuit board and the patterns 14 are positively designed as dummy patterns.

Iwasaki et al., US Patent Publication Number 2002/0096357, in figure 1, discloses a circuit board (11) with electrically floating conductive layers (20, 21) around

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interconnect layer 17 and 18, respectively. However, the conductive layers (20, 21) are positively designed as electrically floating layers and are electrically floating.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Claim 19, withdrawn from consideration as a result of restriction requirement, has been rejoined and fully examined for patentability, as it depends and include all the limitations of the allowable claim 11.

Since all claims previously withdrawn from consideration under 37 CFR 1.142 have been rejoined, the restriction requirement made in the Office action mailed on May 11, 2005 is hereby withdrawn.

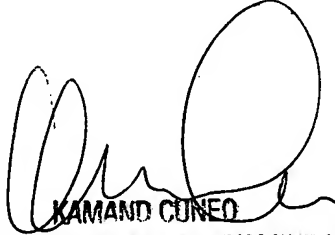
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ishwar (I. B.) Patel whose telephone number is (571) 272 1933. The examiner can normally be reached on M-F (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (571) 272 1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ishwar (I. B.) Patel
Examiner
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June 9, 2005.



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